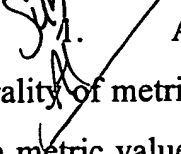


WHAT IS CLAIMED IS:

5 *Sub*  A method for normalizing metric values in a decoder which uses a plurality of metric values of a next state said each metric value having at least a survival path metric value and a competition path metric value, the method comprising the steps of:

detecting the survival path metric values out of the metric values;
 detecting a minimum survival path metric value out of the detected survival path metric values;
 determining whether the detected minimum survival path metric value exceeds a threshold value; and
 subtracting, when the minimum survival path metric value exceeds the threshold value, the minimum survival path metric value from the metric values, to output normalized metric values.

20 2. A device for normalizing metric values in a decoder which uses a plurality of metric values of a next state, said each metric value having at least a survival path metric value and a competition path metric value, the device comprising:

a comparator for detecting the survival path metric values out of the metric values, detecting a minimum survival path metric value out of the detected survival path metric values, and outputting the minimum survival path metric value when the detected minimum survival path metric value exceeds a threshold value; and

subtracters for subtracting the minimum survival path metric value from the metric values.

25 3. A method for normalizing metric values in a decoder which uses a plurality of metric values of a next state, said each metric value having at least a survival

path metric value and a competition path metric value, the method comprising the steps of:

detecting the competition path metric values out of the metric values;

detecting a minimum competition path metric value out of the detected competition path metric values;

determining whether the detected minimum competition path metric value is greater than a threshold value; and

subtracting, when the minimum competition path metric value is greater than the threshold value, a given normalization value to the metric values, to output normalized metric values.

4. A device for normalizing metric values in a decoder which uses a plurality of metric values of a next state, said each metric value having at least a survival path metric value and a competition path metric value, the device comprising:

a comparator for detecting the competition path metric values out of the metric values, detecting a minimum competition path metric value out of the detected competition path metric values, and outputting a reference metric value when the detected minimum competition path metric value is greater than a threshold value; and

subtracters for subtracting the reference metric value to the metric values.

5. A method of normalizing metric values in a decoder which uses a plurality of next state metric values, each of said metric values having at least a survival path metric value and a competition path metric value, the method comprising the steps of:

detecting the survival path metric values out of the metric values;

detecting a minimum survival path metric value out of the detected survival path metric values;

determining whether the detected minimum survival path metric value exceeds a threshold value; and

subtracting, when the minimum survival path metric value exceeds the threshold value, the minimum survival path metric value from the metric values, to output normalized metric values;

detecting the competition path metric values out of the metric values;

detecting a minimum competition path metric value out of the detected competition path metric values;

determining whether the detected minimum competition path metric value is greater than a threshold value; and

subtracting, when the minimum competition path metric value is greater than the threshold value, a given normalization value to the metric values, to output normalized metric values.